General

Guideline Title

Routine prenatal care.

Bibliographic Source(s)

Akkerman D, Cleland L, Croft G, Eskuchen K, Heim C, Levine A, Setterlund L, Stark C, Vickers J, Westby E. Routine prenatal care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2012 Jul. 115 p. [314 references]

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Institute for Clinical Systems Improvement (ICSI). Routine prenatal care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2010 Jul. 98 p.

Recommendations

Major Recommendations

Note from the National Guideline Clearinghouse (NGC) and the Institute for Clinical systems Improvement (ICSI): For a description of what has changed since the previous version of this guidance, refer to Summary of Changes Report - July 2012. In addition, ICSI has made a decision to transition to the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system. This document is in transition to the GRADE methodology. Transition steps incorporating GRADE methodology for this document include the following:

- Priority placed upon available systematic reviews in literature searches.
- All existing Class A (randomized controlled trials [RCTs]) studies have been considered as high quality evidence unless specified differently by a work group member.
- All existing Class B, C and D studies have been considered as low quality evidence unless specified differently by a work group member.
- All existing Class M and R studies are identified by study design versus assigning a quality of evidence. Refer to Crosswalk between ICSI Evidence Grading System and GRADE (see the "Rating Scheme for the Strength of the Evidence" field).
- All new literature considered by the work group for this revision has been assessed using GRADE methodology.

The recommendations for routine prenatal care are presented in the form of a table with accompanying annotations. Clinical highlights and a table for routine prenatal care follow. The reader is directed to the original guideline document for further discussion of each of the following topics.

Clinical Highlights

- Identify patients with greater potential for high-risk pregnancy and provide appropriate preconception counseling. (*Annotation #4; Aim #1*

– see original guideline document)

- Each pregnant patient and each patient planning a pregnancy should receive a comprehensive risk assessment and appropriate risk-related interventions, including risks for preterm labor, relevant infectious diseases, and relevant genetic disorders. (*Annotations #2, 4, 12; Aim #2, 5 – see original guideline document*)
- Each pregnant patient should receive visit-specific screening tests, education, immunizations and chemoprophylaxis as described in the schedule of prenatal visits. (*Annotation #1; Aim #2 – see original guideline document*)
- Each pregnant patient should be counseled regarding the limitations and benefits of each aneuploidy test and offered the screening and diagnostic tests. (*Annotation #24; Aim #3 – see original guideline document*).
- For patients with previous Cesarean section, provide education of risks and benefits associated with vaginal birth after Cesarean (VBAC). Assess and document patient's desire and appropriateness for VBAC (*Annotation #22; Aim #4 – see original guideline document*).

Event	Preconception Visit	Visit 1** 6–8 weeks	Visit 2 10–12 weeks	Visit 3 16–18 weeks	Visit 4 22 weeks
Screening Maneuvers	Risk profiles Height and weight/BMI Blood pressure History and physical Cervical cancer screening Rubella/rubeola Varicella Domestic violence Depression	Risk profiles GC/Chlamydia Height and weight/BMI Blood pressure History and physical* Rubella Varicella Domestic violence Depression CBC ABO/Rh/Ab Syphilis Urine culture HIV [Blood lead screening] Viral hepatitis	Weight Blood pressure Fetal aneuploidy screening Fetal heart tones	Weight Blood pressure Depression Fetal aneuploidy screening Fetal heart tones OB ultrasound (optional) Fundal height Cervical assessment	Weight Blood pressure Fetal heart tones Fundal height Cervical assessment
Counseling Education Intervention	Preterm labor Substance use	Preterm labor [VBAC]	Preterm labor education Prenatal and lifestyle	Preterm labor education Prenatal and lifestyle	Preterm labor education Prenatal and lifestyle

Event	Preconception Visit	Visit 1** 6–8 weeks	Visit 2 10–12 weeks	Visit 3 16–18 weeks	Visit 4 22 weeks
	Nutrition and weight Domestic violence List of medications, herbal supplements, vitamins Accurate recording of menstrual dates	Prenatal and lifestyle education • Physical activity • Nutrition • Follow-up of modifiable risk factors • Nausea and vomiting • Warning signs • Course of care • Physiology of pregnancy Discuss fetal aneuploidy screening	education • Fetal growth • Review lab results from visit 1 • Breastfeeding • Nausea and vomiting • Physiology of pregnancy • Follow-up of modifiable risk factors	education • Follow-up of modifiable risk factors • Physiology of pregnancy • Second trimester growth • Quickening Preterm labor prevention	education • Follow-up of modifiable risk factors • Classes • Family issues • Length of stay • GDM Preterm labor prevention
Immunization and Chemoprophylaxis	Tetanus booster Rubella/MMR [Varicella/VZIG] Hepatitis B vaccine Folic acid supplement	Tetanus booster Nutritional supplements Influenza [Varicella/VZIG] Pertussis		[Progesterone]	[RhoGam]

Event	Visit 5 28 weeks	Visit 6 32 weeks	Visit 7 36 weeks	Visit 8-11 38-41 weeks	Visit Post-Partum 4-6 weeks
Screening Maneuvers	Preterm labor risk Weight Blood pressure Depression Fetal heart tones Fundal height GDM Domestic violence [Rh antibody status]	Weight Blood pressure Fetal heart tones Fundal height	Weight Blood pressure Fetal heart tones Fundal height Cervix exam Confirm fetal position Culture for group B streptococcus	Weight Blood pressure Fetal heart tones Fundal height Cervix exam as indicated	Cervical cancer screening [GC/Chlamydia] Height and weight/BMI Blood pressure History and physical Domestic violence Depression GDM

Event	Visit 5 28 weeks	Visit 6 32 weeks	Visit 7 36 weeks	Visit 8-11 38-41 weeks	Visit Post-Partum 4-6 weeks
	[Hepatitis B surface Ag] [GC/Chlamydia]				
Counseling Education Intervention	Psychosocial risk factors Preterm labor education Prenatal and lifestyle education • Follow-up of modifiable risk factors • Work • Physiology of pregnancy • Preregistration • Fetal growth Preterm labor prevention Awareness of fetal movement	Preterm labor education Prenatal and lifestyle education • Follow-up of modifiable risk factors • Travel • Contraception • Sexuality • Pediatric care • Episiotomy Labor and delivery issues Warning signs/pregnancy-induced hypertension [VBAC] Preterm labor prevention	Prenatal and lifestyle education • Follow-up of modifiable risk factors • Postpartum care • Management of late pregnancy symptoms • Contraception • When to call provider • Discussion of postpartum depression	Prenatal and lifestyle education • Follow-up of modifiable risk factors • Postpartum vaccinations • Infant CPR • Post-term management Labor and delivery update Breastfeeding	Contraception Discussion of postpartum depression Breastfeeding concerns and support
Immunization and Chemoprophylaxis	[ABO/Rh/Ab] [RhoGAM] [Hepatitis B Ag]				Tetanus/pertussis

[Bracketed] items refer to high risk groups only.

*It is acceptable for the history and physical and laboratory tests listed under Visit 1 to be deferred to Visit 2 with the agreement of both the patient and the clinician.
**Should also include all subjects listed for the preconception visit if none occurred.

Abbreviations: Ab, antibody; Ag, antigen; ABO, blood group system; BMI, body mass index; CBC, complete blood count; CPR, cardiopulmonary resuscitation; GC, gonococci (gonorrhea); GDM, gestational diabetes mellitus; HIV, human immunodeficiency virus; MMR, measles/mumps/rubella; OB, obstetrics; RhoGAM, Rho(D) immune globulin; VBAC, vaginal birth after Caesarean; VZIG, varicella zoster immune globulin

Practices to Consider Discontinuing

- Routine digital examination
- Pelvimetry
- Routine urine dipsticks and routine urinalysis
- Routine evaluation for edema
- Routine testing for cytomegalovirus (CMV), parvovirus, toxoplasmosis

- Routine nutritional supplements
- Routine testing for bacterial vaginosis

Clinical Algorithm(s)

The following algorithms are provided in Annotation #24 in the original guideline document :

- Aneuploidy Testing Integrated Screening Tool
- Aneuploidy Testing Stepwise Sequential Screening Tool
- Aneuploidy Testing Contingency Screening Tool

Scope

Disease/Condition(s)

- Preconception and pregnancy (*Counseling; Screening*)
- Perinatal complications (*Prevention; Risk Assessment*)

Guideline Category

Counseling

Evaluation

Prevention

Risk Assessment

Screening

Clinical Specialty

Family Practice

Internal Medicine

Nursing

Obstetrics and Gynecology

Preventive Medicine

Intended Users

Advanced Practice Nurses

Allied Health Personnel

Health Care Providers

Health Plans

Hospitals

Managed Care Organizations

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

- To increase the percentage of patients pregnant or planning a pregnancy who receive timely, comprehensive screens for risk factors
- To increase the percentage of pregnant patients or women planning pregnancy who receive timely prenatal counseling and education as outlined in the guideline
- To increase the number of first-trimester patients who have documentation of counseling about appropriate aneuploidy screening
- To increase the percentage of vaginal birth after cesarean (VBAC)-eligible pregnant patients who have a collaborative conversation with their clinician about the risks and benefits of VBAC
- To increase the percentage of pregnant patients who have appropriate interventions for preterm birth (PTB) risk factors

Target Population

All women who are pregnant or are considering pregnancy

Interventions and Practices Considered

Screening Maneuvers

1. Risk profiles, including preconception risk assessment, preterm labor risks, workplace/lifestyle hazards assessment, infectious disease risks, genetic risks, risks of vaginal birth after Caesarean (VBAC)
2. Height, weight, blood pressure, history, and physical
3. Screening for rubella/rubeola and varicella status
4. Screening for depression and domestic violence
5. Cervix assessment
6. Laboratory studies
    - Cervical cancer screening
    - Blood system (ABO)/Rh/antibodies
    - Syphilis
    - Urine culture
    - Complete blood count (CBC)
    - Fetal aneuploidy screening
    - Viral hepatitis (hepatitis B surface antigen screening)
    - Human immunodeficiency virus (HIV)
    - Blood lead screening
    - Gonococci (gonorrhea)/chlamydia
    - Group B *Streptococcus* (GBS) screening
    - Gestational diabetes mellitus test
7. Fetal heart tones, fetal position, fundal height, and optional obstetric ultrasound

Counseling, Education and Interventions

1. Preterm labor (PTL) education and prevention
2. Complete inventory of medications, herbal supplements, and vitamins
3. Accurate recording of menstrual dates
4. Counseling on risks and benefits of VBAC
5. Prenatal and lifestyle education

Immunization and Chemoprophylaxis

1. Vaccinations: varicella, rubella (measles/mumps/rubella [MMR]), hepatitis B, tetanus-diphtheria (Td) booster (or tetanus, reduced diphtheria, and acellular pertussis [Tdap]), and influenza
2. RhoGAM - D immunoglobulin
3. Hepatitis B immunoglobulin
4. Progesterone for women at high-risk for preterm delivery
5. Treatment of HIV-infected mothers with a combination antiretroviral therapy using zidovudine as a cornerstone
6. Intrapartum antibiotic prophylaxis for GBS culture
7. Folic acid and other nutritional supplements if indicated

Major Outcomes Considered

- Cost-effectiveness of prenatal care
- Sensitivity and specificity of screening maneuvers
- Maternal/fetal health outcomes

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

A consistent and defined process is used for literature search and review for the development and revision of Institute for Clinical Systems Improvement (ICSI) guidelines. The literature search was divided into two stages to identify systematic reviews (stage I) and randomized controlled trials, meta-analyses and other literature (stage II). Literature search terms used for this revision are below and include literature from January 2009 through January 2012.

A PubMed search of clinical trials, systematic reviews, meta-analyses and practice guidelines using the following topics was performed: work and pregnancy, fetal alcohol spectrum disorder (FASD), homelessness, varicella, rubella, genetic screening for hemoglobinopathies, aneuploidy screening, hypertension, domestic violence, cervical assessment and vaginal birth after Caesarean (VBAC).

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Conclusion Grades

Key conclusions (as determined by the work group) are supported by a conclusion grading worksheet that summarizes the important studies pertaining to the conclusion. Individual studies are classed according to the system presented below and are assigned a designator of +, -, or Ø to reflect the study quality. Conclusion grades are determined by the work group based on the following definitions:

Grade I: The evidence consists of results from studies of strong design for answering the question addressed. The results are both clinically important and consistent with minor exceptions at most. The results are free of any significant doubts about generalizability, bias, and flaws in research design. Studies with negative results have sufficiently large samples to have adequate statistical power.

Grade II: The evidence consists of results from studies of strong design for answering the question addressed, but there is some uncertainty attached to the conclusion because of inconsistencies among the results from the studies or because of minor doubts about generalizability, bias, research design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from weaker designs for the question addressed, but the results have been confirmed in separate studies and are consistent with minor exceptions at most.

Grade III: The evidence consists of results from studies of strong design for answering the question addressed, but there is substantial uncertainty attached to the conclusion because of inconsistencies among the results of different studies or because of serious doubts about generalizability, bias, research design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from a limited number of studies of weak design for answering the question addressed.

Grade Not Assignable: There is no evidence available that directly supports or refutes the conclusion.

Study Quality Designations

The symbols +, -, Ø and N/A found on the conclusion grading worksheets are used to designate the quality of the primary research reports and systematic reviews:

+: indicates that the report or review has clearly addressed issues of inclusion/exclusion, bias, generalizability, and data collection and analysis.

-: indicates that these issues (inclusion/exclusion, bias, generalizability, and data collection and analysis) have not been adequately addressed.

Ø: indicates that the report or review is neither exceptionally strong nor exceptionally weak.

N/A: indicates that the report is not a primary reference or a systematic review and therefore the quality has not been assessed.

Following a review of several evidence rating and recommendation writing systems, Institute for Clinical System Improvement (ICSI) has made a decision to transition to the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system.

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Crosswalk between ICSI Evidence Grading System and GRADE

ICSI GRADE System	Previous ICSI System	
High, if no limitation	Class A:	Randomized, controlled trial
Low	Class B:	[observational]
		Cohort study
	Class C:	[observational]
		Non-randomized trial with concurrent or historical controls
Low		Case-control study
Low		Population-based descriptive study
*Low		Study of sensitivity and specificity of a diagnostic test
*Following individual study review, may be elevated to Moderate or High depending upon study design		
	Class D:	[observational]
Low		Cross-sectional study

ICSI GRADE System	Previous ICSI System	Case series Case report
Meta-analysis	Class M:	Meta-analysis
Systematic Review		Systematic review
Decision Analysis		Decision analysis
Cost-Effectiveness Analysis		Cost-effectiveness analysis
Low	Class R:	Consensus statement
Low		Consensus report
Low		Narrative review
Guideline	Class R:	Guideline
Low	Class X:	Medical opinion

Evidence Definitions

High Quality Evidence = Further research is very unlikely to change confidence in the estimate of effect.

Moderate Quality Evidence = Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate.

Low Quality Evidence = Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate or any estimate of effect is very uncertain.

In addition to evidence that is graded and used to formulate recommendations, additional pieces of literature will be used to inform the reader of other topics of interest. This literature is not given an evidence grade and is instead identified as a Reference throughout the document.

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Guideline Development Process

A work group consisting of 6 to 12 members that includes physicians, nurses, pharmacists, and other healthcare professionals relevant to the topic, along with an Institute for Clinical Systems Improvement (ICSI) staff facilitator, develops each document. Ordinarily, one of the physicians will be the leader. Most work group members are recruited from ICSI member organizations, but if there is expertise not represented by ICSI members, 1 or 2 members may be recruited from medical groups or hospitals outside of ICSI.

The work group will meet for 7 to 8 three-hour meetings to develop the guideline. A literature search and review is performed and the work group members, under the coordination of the ICSI staff facilitator, develop the algorithm and write the annotations and literature citations.

Once the final draft copy of the guideline is developed, the guideline goes to the ICSI members for critical review.

Rating Scheme for the Strength of the Recommendations

Not applicable

Cost Analysis

The guideline developers reviewed published cost analyses.

Method of Guideline Validation

Internal Peer Review

Description of Method of Guideline Validation

Critical Review Process

The purpose of critical review is to provide an opportunity for the clinicians in the member groups to review the science behind the recommendations and focus on the content of the guideline. Critical review also provides an opportunity for clinicians in each group to come to consensus on feedback they wish to give the work group and to consider changes necessary across systems in their organization to implement the guideline.

All member organizations are expected to respond to critical review guidelines. Critical review of guidelines is a criterion for continued membership within the Institute for Clinical Systems Improvement (ICSI).

After the critical review period, the guideline work group reconvenes to review the comments and make changes, as appropriate. The work group prepares a written response to all comments.

Approval

Each guideline, order set, and protocol is approved by the appropriate steering committee. There is a steering committee for Respiratory, Cardiovascular, Women's Health, and Preventive Services. The Committee for Evidence-based Practice approves guidelines, order sets, and protocols not associated with a particular category. The steering committees review and approve each guideline based on the following:

- Member comments have been addressed reasonably.
- There is consensus among all ICSI member organizations on the content of the document.
- Within the knowledge of the reviewer, the scientific recommendations within the document are current.
- When evidence for a particular recommendation in the guideline has not been well established, the work group identifies consensus statements that were developed based on community standard of practice and work group expert opinion.
- Either a critical review by members has been carried out, or within the knowledge of the reviewer, the changes proposed are sufficiently familiar and sufficiently agreed upon by the users that a new round of review is not needed.

Once the guideline, order set, or protocol has been approved, it is posted on the ICSI Web site and released to members for use.

Revision Process of Existing Guidelines

ICSI scientific documents are revised every 12 to 36 months as indicated by changes in clinical practice and literature. ICSI checks with every

work group 6 months before the schedule revision to determine if there have been changes in the literature significant enough to cause the document to be revised earlier than scheduled.

ICSI staff working with the work group to identify any pertinent clinical trials, meta-analysis, systematic reviews, or regulatory statements and other professional guidelines conduct a literature search. The work group will meet for 1-2 three-hour meetings to review the literature, respond to member organization comments, and revise the document as appropriate.

A second review by members is indicated if there are changes or additions to the document that would be unfamiliar or unacceptable to member organizations. If a review by members is not needed, the document goes to the appropriate steering committee for approval according to the criteria outlined above.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is not specifically stated for each recommendation.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate prenatal care that includes a comprehensive risk assessment and counseling

Potential Harms

- If patient has hypersensitivity to eggs or to influenza vaccine components, preservative-free vaccines are available for use in these populations. However, nasal spray influenza vaccines are made from live attenuated virus; administration of this form of an influenza vaccine is not recommended in pregnancy.
- Possible low-dose aspirin side effects including bleeding ulcers, allergic reactions including asthma, hemorrhagic stroke, and interactions with other medications should be discussed with patients before starting the medication.
- Although generally well tolerated, calcium supplementation side effects include difficulty swallowing; increase in nephrolithiasis and urinary tract infection (UTI); and reduced absorption of iron, zinc, and magnesium.

Contraindications

Contraindications

- Refer to Annotation #22 in the original guideline document for information on contraindications to vaginal birth after Caesarean (VBAC).
- Administration of the varicella vaccine during pregnancy is contraindicated.
- High doses of vitamin A and molybdenum supplements are contraindicated in pregnancy.

Qualifying Statements

Qualifying Statements

- The information contained in this Institute for Clinical Systems Improvement (ICSI) Health Care Guideline is intended primarily for health professionals and other expert audiences.

- This ICSI Health Care Guideline should not be construed as medical advice or medical opinion related to any specific facts or circumstances. Patients and families are urged to consult a health care professional regarding their own situation and any specific medical questions they may have. In addition, they should seek assistance from a health care professional in interpreting this ICSI Health Care Guideline and applying it in their individual case.
- This ICSI Health Care Guideline is designed to assist clinicians by providing an analytical framework for the evaluation and treatment of patients, and is not intended either to replace a clinician's judgment or to establish a protocol for all patients with a particular condition.

Implementation of the Guideline

Description of Implementation Strategy

Once a guideline is approved for general implementation, a medical group can choose to concentrate on the implementation of that guideline. When four or more groups choose the same guideline to implement and they wish to collaborate with others, they may form an action group.

In the action group, each medical group sets specific goals they plan to achieve in improving patient care based on the particular guideline(s). Each medical group shares its experiences and supporting measurement results within the action group. This sharing facilitates a collaborative learning environment. Action group learnings are also documented and shared with interested medical groups within the collaborative.

Currently, action groups may focus on one guideline or a set of guidelines such as hypertension, lipid treatment, and tobacco cessation.

Detailed measurement strategies are presented in the original guideline document to help close the gap between clinical practice and the guideline recommendations. Summaries of the measures are provided in the National Quality Measures Clearinghouse (NQMC).

Implementation Recommendations

Prior to implementation, it is important to consider current organizational infrastructure that address the following:

- System and process design
- Training and education
- Culture and the need to shift values, beliefs and behaviors of the organization.

The following system changes were identified by the guideline work group as key strategies for health care systems to incorporate in support of the implementation of this guideline:

- Use of simple prenatal forms and checklists can provide an inexpensive and effective means of improving implementation of periodic health maintenance and increase the likelihood that clinicians will put clinical evidence into practice.
- Use of electronic medical records with electronic interfaces allowing transfer of pertinent patient information between clinicians can significantly improve clinician acceptance and implementation of these recommendations.

Implementation Tools

Chart Documentation/Checklists/Forms

Clinical Algorithm

Quality Measures

Quick Reference Guides/Physician Guides

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Related NQMC Measures

Routine prenatal care: percentage of pregnant patients who have an initial risk assessment completed within two visits of initiation of prenatal care.

Routine prenatal care: percentage of patients planning pregnancy who have preconception risk assessment/counseling.

Routine prenatal care: percentage of patients planning a pregnancy who receive counseling and education before pregnancy according to the guideline.

Routine prenatal care: percentage of pregnant patients who receive counseling and education at each visit as outlined in the guideline.

Routine prenatal care: percentage of pregnant patients who receive counseling about aneuploidy screening in the first trimester.

Routine prenatal care: percentage of VBAC-eligible pregnant patients who have a collaborative conversation with their clinician about the risks and benefits of VBAC.

Routine prenatal care: percentage of patients who have had identified preterm birth (PTB) modifiable risk factors who receive an intervention.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Akkerman D, Cleland L, Croft G, Eskuchen K, Heim C, Levine A, Setterlund L, Stark C, Vickers J, Westby E. Routine prenatal care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2012 Jul. 115 p. [314 references]

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

1997 Aug (revised 2012 Jul)

Guideline Developer(s)

Guideline Developer Comment

Organizations participating in the Institute for Clinical Systems Improvement (ICSI): Affiliated Community Medical Centers; Allina Medical Clinic; Aspen Medical Group; Baldwin Area Medical Center; Brown Clinic; Center for Diagnostic Imaging/Medical Scanning Consultants; CentraCare; Central Lakes Medical Clinic; Chippewa County – Montevideo Hospital & Clinic; Cuyuna Regional Medical Center; Essentia Health; Fairview Health Services; Family HealthServices Minnesota; Family Practice Medical Center; Fergus Falls Medical Clinic; Gillette Children's Specialty Healthcare; Grand Itasca Clinic and Hospital; Hamm Clinic; HealthEast Care System; HealthPartners Central Minnesota Clinics; HealthPartners Medical Group & Regions Hospital; Hennepin County Medical Center; Hennepin Faculty Associates; Howard Young Medical Center; Hudson Physicians; Hutchinson Area Health Care; Hutchinson Medical Center; Integrity Health Network; Lake Region Healthcare Corporation; Lakeview Clinic; Mankato Clinic; MAPS Medical Pain Clinics; Marshfield Clinic; Mayo Clinic; Mercy Hospital and Health Care Center; Midwest Spine Institute; Minnesota Association of Community Health Centers; Minnesota Gastroenterology; Multicare Associates; New Richmond Clinic; North Central Heart Institute; North Clinic; North Memorial Health Care; Northwest Family Physicians; Obstetrics and Gynecology Specialists; Olmsted Medical Center; Park Nicollet Health Services; Planned Parenthood Minnesota, North Dakota, South Dakota; Quello Clinic; Raiter Clinic; Rice Memorial Hospital; Ridgeview Medical Center; River Falls Medical Clinic; Riverwood Healthcare Center; South Lake Pediatrics; Southside Community Health Services; Stillwater Medical Group; University of Minnesota Physicians; Winona Health

ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; e-mail: icsi.info@icsi.org; Web site: www.icsi.org.

Source(s) of Funding

The Institute for Clinical Systems Improvement's (ICSI's) work is funded by the annual dues of the member medical groups and five sponsoring health plans in Minnesota and Wisconsin.

Guideline Committee

Women's Health Steering Committee

Composition of Group That Authored the Guideline

Work Group Members: Dale Akkerman, MD (*Work Group Leader*) (Park Nicollet Health Services) (OB/GYN); Carol Stark, MD (Family HealthServices Minnesota) (Family Medicine); Lori Cleland, CNP (HealthPartners Medical Group and Regions Hospital) (Family Medicine); Georgeanne Croft, CNM (HealthPartners Medical Group and Regions Hospital) (Nurse Midwifery); John Vickers, MD (HealthPartners Medical Group and Regions Hospital) (OB/GYN); Elizabeth Westby, MD (Mayo Clinic) (Family Medicine); Kris Eskuchen, MD (Northwest Family Physicians) (Family Medicine); Anna Levine, CNM (Park Nicollet Health Services) (Nurse Midwifery); Linda Setterlund, MA, CPHQ (Institute for Clinical Systems Improvement) (Clinical Systems Improvement Facilitator); Carla Heim (Institute for Clinical Systems Improvement) (Systems Improvement Facilitator)

Financial Disclosures/Conflicts of Interest

Disclosure of Potential Conflicts of Interest

Dale Akkerman, MD (Work Group Leader)
Medical Doctor, Ob/Gyn, Park Nicollet Health Services
National, Regional, Local Committee Affiliations: None
Guideline-Related Activities: Management of Labor guideline work group, Preventive Services guideline work group
Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

Lori Cleland, CNP (Work Group Member)

Certified Nurse Practitioner, HealthPartners Medical Group and Regions Hospital
National, Regional, Local Committee Affiliations: None
Guideline-Related Activities: None
Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

Georgeanne Croft, CNM, MSN, RN (Work Group Member)
Certified Nurse Midwife, Ob/Gyn, HealthPartners Medical Group and Regions Hospital
National, Regional, Local Committee Affiliations: None
Guideline-Related Activities: None
Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

Kris Eskuchen, MD (Work Group Member)
Medical Doctor, Family Medicine, Northwest Family Physicians
National, Regional, Local Committee Affiliations: None
Guideline-Related Activities: None
Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

Anna Levine, CNM (Work Group Member)
Certified Nurse Midwife, Ob/Gyn, Park Nicollet Health Services
National, Regional, Local Committee Affiliations: None
Guideline-Related Activities: Management of Labor guideline work group
Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

Carol Stark, MD (Work Group Member)
Medical Doctor, Family Medicine, Family HealthServices Minnesota
National, Regional, Local Committee Affiliations: None
Guideline-Related Activities: Committee on Evidence-Based Practice
Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

John Vickers, MD (Work Group Member)
Medical Doctor, Ob/Gyn, HealthPartners Medical Group and Regions Hospital
National, Regional, Local Committee Affiliations: None
Guideline-Related Activities: None
Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

Elizabeth Westby, MD (Work Group Member)
Medical Doctor, Family Medicine, Mayo Clinic
National, Regional, Local Committee Affiliations: None
Guideline-Related Activities: None
Research Grants: None
Financial/Non-Financial Conflicts of Interest: None

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Institute for Clinical Systems Improvement (ICSI). Routine prenatal care. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2010 Jul. 98 p.

Guideline Availability

Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site .

Print copies: Available from ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; Web site: www.icsi.org ; e-mail: icsi.info@icsi.org.

Availability of Companion Documents

The following is available:

- Routine prenatal care. Executive summary. Bloomington (MN): Institute for Clinical Systems Improvement; 2012 Jul. Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site .

Print copies: Available from ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; Web site: www.icsi.org ; e-mail: icsi.info@icsi.org.

Additionally, a variety of risk assessment and screening forms, a sample prenatal record, a sample hepatitis B birth report, and a shared decision-making model are available in the appendices to the original guideline document .

Patient Resources

None available

NGC Status

This summary was completed by ECRI on February 15, 2000. The information was verified by the guideline developer on March 15, 2000. This summary was updated by ECRI on April 19, 2001, May 7, 2002, February 5, 2003, March 25, 2004, November 12, 2004, and October 13, 2005. This summary was updated by ECRI on March 3, 2006 following the FDA advisory on varicella zoster immune globulin (VZIG). This summary was updated by ECRI on November 30, 2006. This NGC summary was updated by ECRI Institute on December 14, 2007, November 19, 2008, January 22, 2010, and December 27, 2010. This summary was updated by ECRI Institute on July 15, 2011 following the U.S. Food and Drug Administration advisory on Tamiflu (oseltamivir phosphate). This summary was updated by ECRI Institute on October 16, 2012.

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